REMARKS

These amendments and remarks are filed in response to the Office Action mailed July 21, 2008. For the following reasons, this application should be allowed and the case passed to issue. No new matter is introduced by this amendment. The amendments to claims 20 and 21 are supported throughout the specification and correct an informality.

Claims 1-3 and 19-24 are pending in this application. Claims 1-3 and 19-24 were rejected. Claims 20 and 21 have been amended. Claims 4-18 were previously canceled.

Claim Rejections Under 35 U.S.C. § 112

Claims 20 and 21 were rejected under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement.

Claims 20 and 21 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite.

These rejections are traversed, and reconsideration and withdrawal thereof respectfully requested. Claims 20 and 21 have been amended to further clarify the claims.

Applicants submit that the claims fully comport with the requirements of 35 U.S.C. § 112.

Claim Rejections Under 35 U.S.C. §§ 102 and 103

Claims 1-3 and 19-24 were rejected under 35 U.S.C. § 102(e) as being anticipated by or, alternatively, under 35 U.S.C. § 103(a) as being unpatentable over Ishihara et al. (Journal of Photopolymer Science and Technology, Vol. 15, No. 5, (2002), p. 769-774).

Claims 1-3 and 19-24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Higashi (EP 1063869) in view of Turner et al. (USP No. 4,764,625).

These rejections are traversed, and reconsideration and withdrawal thereof respectfully requested. The following is a comparison between the present invention, as claimed, and the cited prior art.

The Examiner asserted that the phenylamino compounds of Ishihara et al. inherently have the copper levels as claimed, "[b]ecause Ishihara discloses the same method of making the phenylamino compounds...they are considered to inherently have the same characteristics, including copper impurity levels." However, as is shown in Table 1 of the specification, the copper impurity level may be as high as 1500 ppm or greater. As such, the claimed range of 40 to 500 ppm, or 40 to 200 ppm is demonstrably **not** inherent. Moreover, Ishihara et al. do not disclose the same method of making the phenylamino compounds. As is disclosed on page 30, lines 14-18 of the specification, the organic compounds were purified by sublimation. In contrast, Ishihara et al. disclose on page 770, section 2.1 that the compounds were purified by column chromatography. As such, the compounds were not made the same way and therefore would not be expected to have similar copper concentrations. Furthermore, there is no information disclosed in Ishihara et al. regarding the copper concentration. Accordingly, the Examiner's § 102 rejection of claims 1-3 and 19-24 is improper.

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by

persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' " *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999). Thus, inherency is clearly inapplicable in the present application, where data in the present specification, clearly show that the prior art would not inherently have the claimed Cu concentration.

The factual determination of lack of novelty under 35 U.S.C. § 102 requires the disclosure in a single reference of each element of a claimed invention. *Helifix Ltd. v. Blok-Lok Ltd.*, 208 F.3d 1339, 54 USPQ2d 1299 (Fed. Cir. 2000); *Electro Medical Systems S.A. v. Cooper Life Sciences, Inc.,* 34 F.3d 1048, 32 USPQ2d 1017 (Fed. Cir. 1994); *Hoover Group, Inc. v. Custom Metalcraft, Inc.,* 66 F.3d 399, 36 USPQ2d 1101 (Fed. Cir. 1995); *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992); *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051 (Fed. Cir. 1987). Because Ishihara et al. do not disclose the organic compound layer contains copper atoms as impurities in a weight concentration of not lower than 40 ppm and not higher than 500 ppm, as required by claims 1 and 20; and the copper atoms can be detected, and are present in a weight concentration of not higher than 500 ppm, as require by claim 22, Ishihara et al. do not anticipate claims 1, 20, and 22.

Furthermore, the rejections under 35 U.S.C. § 103(a) of claims 1-3 and 19-24 are also improper. The Examiner alleged that it would have been obvious to one of ordinary skill in the art to have purified the compounds because it would be expected that a purified compound would perform better than an unpurified compound. However, the prior art does not suggest the claimed range of claims 1, 20 and 22, nor does the prior art even disclose that copper impurity

level is an important characteristic with regard to luminance efficiency and lifetime. Moreover, the specification does disclose that the compounds are purified by sublimation, which is different than that of the prior art (column chromatography). Furthermore, there is no teaching in the cited prior art of obtaining phenylamino compounds with the claimed range of Cu concentration. Thus, the cited prior art are non-enabling references.

The Examiner averred that it would have been obvious to purify the present compounds. However, it is respectfully submitted that it is only result effective variables that can be optimized, and in order to assert obviousness the optimized variable must recognized by the ***prior art***. See MPEP § 2144.05. In the instant case, only Applicants have recognized and considered the importance of the claimed parameter (e.g., Cu concentration), as a result-effective variable, so that the Examiner can not rely on the theory that it would have been obvious to purify the claimed phenylamino compound within the claimed concentration range.

As taught in MPEP § 2144.05(II)(B) under the heading "Only Result-Effective Variables Can Be Optimized":

> A particular parameter must first ***be recognized*** as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. (citing *In re Antonie*, 195 USPQ 6 (CCPA 1977)) (emphasis added).

In the instant case, the cited prior art is silent regarding Cu concentrations of not lower than 40 ppm and not higher than 500 ppm, as achieving a recognized result; so that there is no basis for alleging obviousness thereof based on process optimization. Accordingly, it is respectfully submitted that the claimed features would not have been obvious in view of Ishihara et al., Higashi, or Turner et al. because the cited prior art does not recognize the claimed parameters as achieving a recognized result.

Specifically, Ishihara et al., Higashi, and Turner et al. fail to satisfy the legal requirement for the prior art to first recognize the amount of Cu of not lower than 40 ppm and not higher than 500 ppm as a result-effective variable. Namely, Ishihara et al., Higashi, and Turner et al. are silent as to the amount of Cu of not lower than 40 ppm and not higher than 500 ppm achieving a recognized result. Accordingly, the cited prior art does not support the Examiner's allegation that it would have been obvious to purify the Cu concentration to a concentration within the claimed range.

Moreover, the features of the present invention recited in claims 1, 20, and 22 provide **new and unexpected results** in relation to improved luminous efficiency and luminescent lifetime, as described in the present specification (see Table 1). Only Applicant has recognized and considered the parameter (e.g., the amount of Cu of not lower than 40 ppm and not higher than 500 ppm) in relation to luminous efficiency and luminescent lifetime to achieve the disclosed results described in the present specification. Ishihara et al., Higashi, and Turner et al. are completely silent as to the improvement in luminous efficiency and luminescent lifetime achieved by the present invention, and does not enable optimization of the claimed parameter.

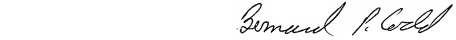
The dependent claims are allowable for at least the same reasons as the independent claims from which they depend and further distinguish the claimed organic electroluminescent device.

In view of the above amendments and remarks, Applicants submit that this application should be allowed and the case passed to issue. If there are any questions regarding this Amendment or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP



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